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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,300	03/28/2005	Hans-Helmut Bechtel	DE 020089	6524

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
WALFORD, NATALIE K	
ART UNIT	PAPER NUMBER
2879	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,300	BECHTEL ET AL.	
	Examiner	Art Unit	
	Natalie K. Walford	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Amendment, filed on October 20, 2006, has been entered and acknowledged by the Examiner. Newly added claims 7-20 has been entered. Claims 1-20 are pending in the instant application.

Specification

The amendment filed October 20, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132 (a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: claim 20 has the limitation of an effective dielectric constant less than 5, which is not in the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 6-20 rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara (US 5,701,056).

Regarding claim 1, Shinohara discloses a plasma picture screen in figure 8 comprising: a front plate that includes a transparent plate (item 1) on which a dielectric

layer (item 3) and a protective layer (item 4) are provided, a carrier plate (item 10) that includes a phosphor layer (item 9), with a ribbed structure (item 6) subdividing the space between the front plate and the carrier plate into plasma cells filled with a gas (item 12), one or several electrode arrays (items 2, 11, and 8) on the front plate and the carrier plate for generating corona discharges in the plasma cells, and a powder layer (item 5a and column 8, lines 34-52) between the electrode arrays on the front plate and the electrode arrays on the carrier plate.

Regarding claim 2, Shinohara discloses the plasma picture screen of claim 1, wherein the powder layer is provided on the protective layer (see FIG. 8).

Regarding claim 3, Shinohara discloses the plasma picture screen of claim 2, wherein the powder layer is provided in strip-shaped sections on the protective layer (see FIG. 8).

Regarding claim 4, Shinohara discloses the plasma picture screen of claim 3, wherein the strip-shaped sections of the powder layer are provided such that they each lie opposite an intervening space between pairs of respective discharge electrodes (see FIG. 8).

Regarding claim 6, Shinohara discloses the plasma picture of claim 1, wherein the powder layer includes a material chosen from the group of dielectric materials and phosphors (column 8, lines 34-52).

Regarding claim 7, Shinohara discloses the plasma picture screen of claim 1, wherein the powder layer includes a non-phosphor dielectric material (column 8, lines 34-52).

Regarding claim 8, Shinohara discloses the plasma picture screen of claim 1, wherein the powder layer includes material that reflects UV radiation (column 5, lines 51-64).

Regarding claim 9, Shinohara discloses the plasma picture screen of claim 1, wherein the powder layer includes material that emits UV radiation (column 5, lines 51-64 and column 8, lines 34-52).

Regarding claim 10, Shinohara discloses the plasma picture screen of claim 9, wherein the powder layer includes a plurality of materials that each emit a different color of visible light (see FIG. 8).

Regarding claim 11, Shinohara discloses a plasma display in figure 8 comprising: a front plate that includes a transparent plate (item 1) on which a dielectric layer (item 3) and a protective layer (item 4) are provided, a carrier plate (item 10) that includes a phosphor layer (item 9), with a ribbed structure (item 6) subdividing the space between the front plate and the carrier plate into plasma cells filled with a gas (item 12), one or several electrode arrays (items 2, 11, and 8) on the front plate and the carrier plate for generating corona discharges in the plasma cells, and a dielectric layer (item 5a) between the electrode arrays on the front plate and the electrode arrays on the carrier plate that extends into a region between the electrode arrays on the front plate and the electrode arrays on the carrier plate so as to affect a capacitance between the electrode arrays on the front plate and the electrode arrays on the carrier plate.

Regarding claim 12, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes strip-shaped segments that overlap at least a portion of the electrode arrays on the carrier plate (see FIG. 8).

Regarding claim 13, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes strip-shaped segments that overlap at least a portion of the electrode arrays on the front plate (see FIG. 8).

Regarding claim 14, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes a non-phosphor oxide (column 8, lines 34-52).

Regarding claim 15, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes a powder (column 8, lines 34-52).

Regarding claim 16, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes a material that reflects UV radiation (column 5, lines 51-64 and column 8, lines 34-52).

Regarding claim 17, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes a material that emits UV radiation (column 5, lines 51-64 and column 8, lines 34-52).

Regarding claim 18, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes a material that emits visible light (column 5, lines 51-64 and column 8, lines 34-52).

Regarding claim 19, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer includes a first material that emits light of a first color and a second material that emits light of a second color (see FIG. 8).

Regarding claim 20, Shinohara discloses the plasma display of claim 11, wherein the dielectric layer exhibits an effective dielectric constant less than 5 (column 8, lines 34-52). The Examiner notes that the glass powder as disclosed by Shinohara has a dielectric constant of less than 5. Since it is inherent for a material to have a dielectric

constant, it is inherent for the materials to have an effective dielectric constant less than 5.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara (US 5,701,056) in view of Takagi et al. (JP 2000-113824).

Regarding claim 5, Shinohara discloses a plasma picture screen as claimed in claim 1, but does not expressly disclose that characterized in that the density of the powder layer is $\leq 60\%$ of the density of the powder material, as claimed by Applicant. Shin discloses certain materials for the powder layer (page 11, lines 1-6), but not the densities. Takagi is cited to show a plasma display panel with a fluorescent powder that has a consistency between 0.3 and 0.6 (paragraph 6) and can be made from fluorescent powders (paragraph 11). Takagi teaches that there are few defects and a layer formed at this ratio has high luminescence brightness and high display quality (paragraph 8).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Shinohara's device to include the density of the powder layer is $\leq 60\%$ of the density of the powder material as suggested by Takagi for having a high luminescence brightness and high display quality.

Response to Arguments

Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nkw

1/6/07

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